

IN THE CLAIMS:

1. (Currently Amended) A lithographic projection apparatus comprising:
a radiation system to supply a projection beam of radiation;
a support structure to support patterning structure, the patterning structure serving to pattern the projection beam according to a desired pattern;
a substrate table to hold a substrate; and
a projection system disposed in an optical path between said patterning structure and said substrate table to project the patterned beam onto a target of the substrate,
wherein a space containing at least part of said projection system is at a pressure of about 0.1 to 10 Pa and contains argon, nitrogen, helium or a mixture thereof.
2. (Original) An apparatus according to claim 1, wherein said radiation system is adapted to produce a projection beam of extreme ultraviolet radiation having a wavelength of less than 50nm.
3. (Original) An apparatus according to claim 2, wherein said beam of extreme ultraviolet radiation has a wavelength in the range of from 8 to 20 nm.
4. (Original) An apparatus according to claim 3, wherein said beam of extreme ultraviolet radiation has a wavelength in the range of from 9 to 16 nm.
5. (Canceled)
6. (Previously Presented) An apparatus according to claim 1, wherein the pressure in said space is from 1 to 5 Pa.
7. (Previously Presented) An apparatus according to claim 6, wherein the pressure in said space is from 2 to 3 Pa.
8. (Currently Amended) A method of manufacturing a device using a lithographic projection apparatus comprising:

projecting a patterned beam of radiation onto a target portion of a layer of radiation-sensitive material on a substrate with a projection system, said projection system being disposed in an optical path between a patterning structure and said substrate; and

supplying a continuous flow of argon, nitrogen, helium or a mixture thereof to a space containing at least a part of said projection system, wherein the pressure in said space is from 0.1 to 10 Pa.

9. (Currently Amended) A semiconductor device manufactured in accordance with a method comprising:

projecting a patterned beam of radiation onto a target portion of a layer of radiation-sensitive material on a substrate with a projection system, said projection system being disposed in an optical path between a patterning structure and said substrate; and

supplying a continuous flow of argon, nitrogen, helium or a mixture thereof to a space containing at least a part of said projection system, wherein the pressure in said space is from 0.1 to 10 Pa.

10. (Previously Presented) An apparatus according to claim 1, further comprising an illumination system wherein a space containing at least part of said illumination system is at a pressure of about 0.1 to 10 Pa and contains argon, nitrogen, helium or a mixture thereof.

11. (Previously Presented) An apparatus according to claim 1, wherein the space containing the part of the projection system is supplied with a continuous flow of argon, nitrogen, helium or a mixture thereof.

12. (Previously Presented) An apparatus according to claim 11, wherein the pressure in the space containing the part of the projection system is from 1 to 5 Pa.

13. (Previously Presented) An apparatus according to claim 12, wherein the pressure in the space containing the part of the projection system is from 2 to 3 Pa.

14. (Previously Presented) An apparatus according to claim 10, wherein the space containing the part of the illumination space is supplied with a continuous flow of argon, nitrogen, helium or a mixture thereof.

15. (Previously Presented) An apparatus according to claim 14, wherein the pressure in the space containing the part of the illumination system is from 1 to 5 Pa.

16. (Previously Presented) An apparatus according to claim 15, wherein the pressure in the space containing the part of the illumination system is from 2 to 3 Pa.